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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,588	07/28/2003	Jeffrey K. Drogue	6970.02	4659

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EXAMINER

BOGART, MICHAEL G

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/628,588

Applicant(s)

DROGUE ET AL.

Examiner

Michael G. Bogart

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 15 August 2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections – 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 13 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added material which is not supported by the original disclosure is as follows: the vacuum connector is now being claimed as located “proximate the point of use of a vacuum tool.” As interpreted herein, the point of use is considered to be the end of the conduit having the end effector. “Proximate” is objectively defined as meaning very near, or immediately next to. See Merriam Webster’s Collegiate Dictionary, Tenth Edition, 1996. However, the specification shows that the end effectors are separated by the full length of the conduit from the connector, running contrary to the objective definition of “proximate”. Nowhere in the specification is the term “proximate” or its equivalent used to describe this special relationship. Regarding the relationship shown in figure 1, this is a flow chart and does not show relative distances between the elements.

***Claim rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5-7 and 10-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Paul (US 5,264,026 A).

The claims are given the broadest reasonable interpretation consistent with the specification. *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). In the event that applicants successfully traverse the rejection of claims 1 and 13 under 35 USC § 112, consistent with the disclosure of the specification, “proximate the point of use of the vacuum tool” is alternatively interpreted as meaning that the end effector is near or in the vicinity of the vacuum connector. Furthermore, the term "proximate" is not defined by the claim and the specification does not provide a standard for ascertaining the requisite degree, making it a relative term.

Regarding claim 1, Paul teaches a vacuum connector (20, 62, 12, 68, 22) near (e.g., in the same building) the point of use of a vacuum tool (24) and adapted to be connected to a vacuum source (16), the vacuum connector comprising:

an inlet (62), an outlet (68), a separation chamber (12) in communication with the inlet (62), an air pathway (62, 12, 68) in communication with the separation chamber (12) and the outlet (68), and a fluid pathway (22) separate from the air pathway (62, 12, 68), and in communication with the separation chamber (12) and outlet (68)(see figure 2, below).

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Regarding claims 3 and 5, Paul teaches a bioaerosol inlet (20) separate from, and in communication with the outlet (68). The chamber (12) combined with disinfectant inlets (20) serves as a decontamination unit.

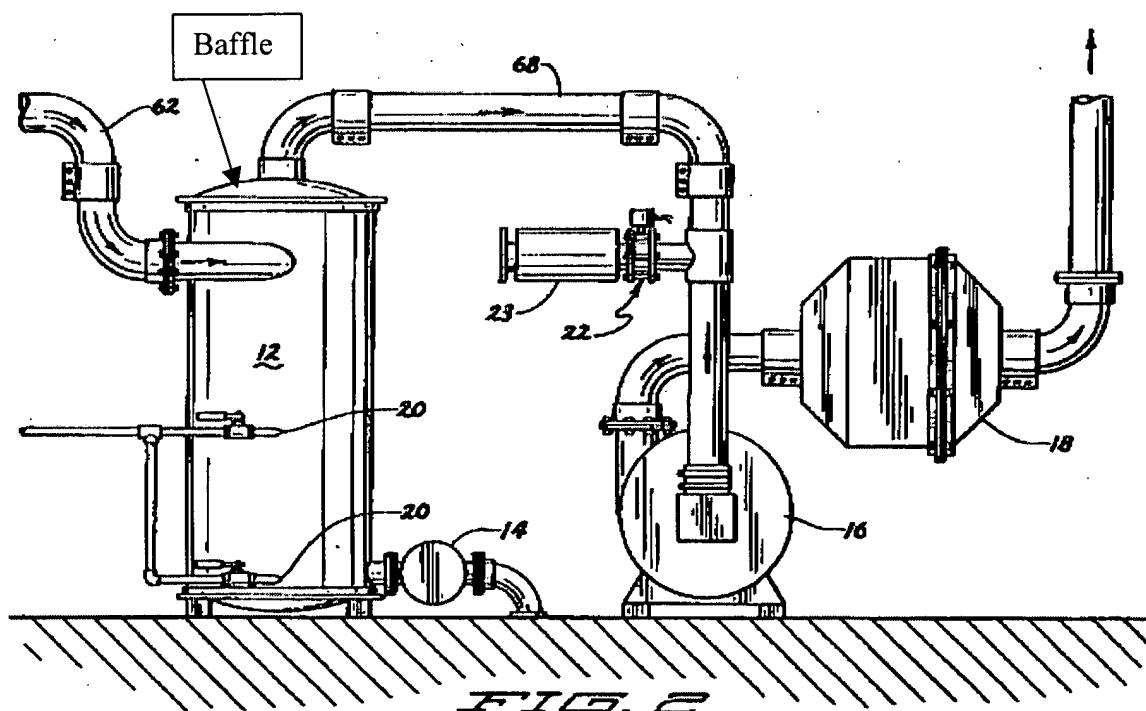
Regarding claim 6, Paul teaches a collection chamber (18)

Regarding claim 7, Paul teaches a vacuum regulator (44, 46)(figure 4).

Regarding claim 10, Paul teaches a vacuum source (16).

regarding claim 11, see figure 2, below.

Regarding claim 12, Paul teaches a filter (18).



*Claim rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

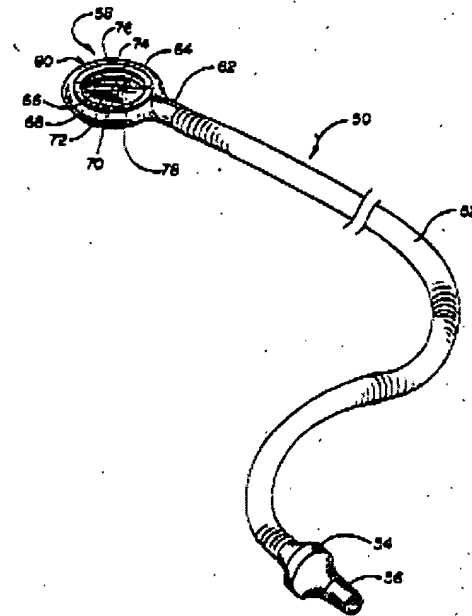
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 9 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Paul as applied to claims 1, 3, 5-7 and 10-12 above, in view of Shultz *et al.* (US 4,921,492).

Paul expressly teaches the claimed invention except for an end effector near the point of use of a vacuum tool.

Shultz *et al.* teaches an end effector (12)(figure 5, below) which is proximate (in the same building) a connector.

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At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the end effector of Shultz *et al.* to the plume evacuation system of Paul in order to provide a interface for effectively removing debris resulting from laser surgery (see Shultz *et al.* abstract).

Claims 2, 4 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Paul as applied to claims 1, 3, 5-7 and 10-12 above, in view of Goosen (US 5,019,060).

Paul teaches the claimed invention except for a volumetric flow indicator.

Goosen teaches a flow indicator (26)(figure 2, below).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to add the flow indicator of Goosen to the laser plume evacuation system of Paul in order to provide a means of monitoring the flow rate of the system.

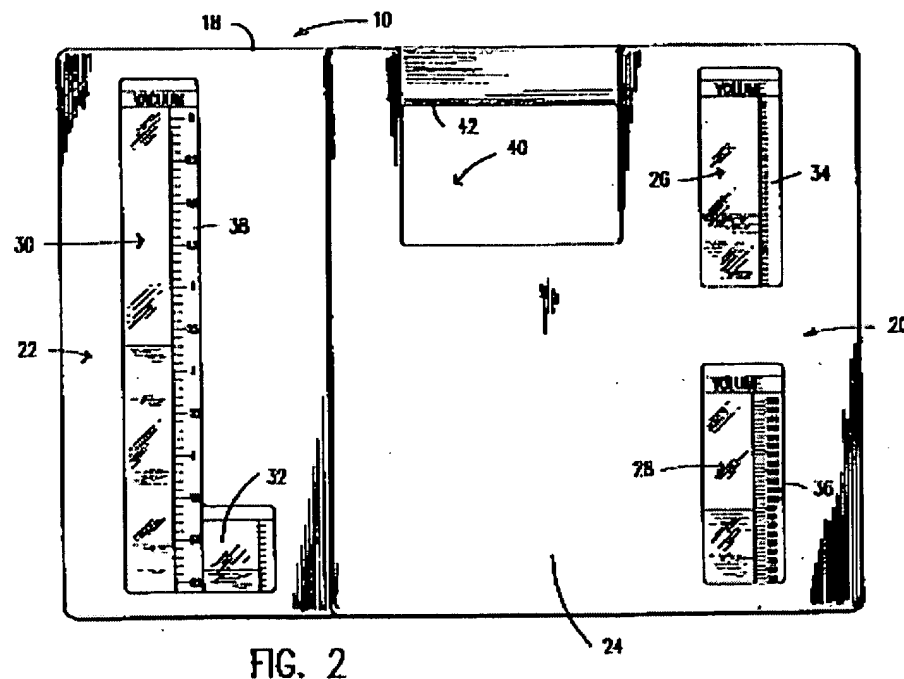


FIG. 2

Regarding claim 8, the references do not disclose a microprocessor-based flow meter.

Merely automating a prior art process is not sufficient to patentably distinguish a claimed invention if no unexpected result can be demonstrated. See *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.). MPEP § 2144.04. In the instant case, applicants have added electronic calculating means to a flow meter, which can automatically calculate flow rates, etc. This is simply an automation step over the manual calculations which may be performed by the combination of Paul and Goosen.



Claims 14-18 rejected under 35 U.S.C. § 103(a) as being unpatentable over Paul and Shultz *et al.* as applied to claims 9 and 13 above, in view of Goosen.

Paul and Shultz *et al.* teach the claimed invention except for a flow indicator.

Goosen teaches a flow control indicator (26).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to add the flow indicator of Goosen to the laser plume evacuation system of Paul and Shultz *et al.* in order to provide a means of monitoring the flow rate of the system.

### ***Response to Arguments***

Applicant's arguments filed 30 November 2006 have been fully considered but they are not persuasive.

Applicants assert that Paul alone, or in combination with the other cited references, do not show a vacuum connector proximate the point of use of a vacuum tool and adapted to be connected to a vacuum source. This argument is not persuasive because as detailed supra, “proximate” is interpreted as simply meaning “near.” This is viewed as a relative limitation that does not provide for a specific distance between elements. The connector is in the same building as the vacuum tool and is therefore proximate or near the point of use of the vacuum tool.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bogart whose telephone number is (571) 272-4933.

In the event the examiner is not available, the Examiner's supervisor, Tatyana Zalukaeva may be reached at phone number (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for formal communications. For informal communications, the direct fax to the Examiner is (571) 273-4933.

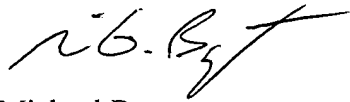
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-3700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "M. Bogart", with a stylized flourish at the end.

Michael Bogart  
31 January 2006

**TATYANA ZALUKAEVA**  
**SUPERVISOR, PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read "Tatyana", with a large, elegant loop at the end.